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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,832

04/11/2005

Christopher Michael Sumpter

SWIN 3199

1095

7812 7590 10/31/2007  
SMITH-HILL AND BEDELL, P.C.  
16100 NW CORNELL ROAD, SUITE 220  
BEAVERTON, OR 97006

EXAMINER

SUN, XIUQIN

ART UNIT

PAPER NUMBER

2863

MAIL DATE

DELIVERY MODE

10/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/526,832	Applicant(s) SUMPTER ET AL.	
	Examiner Xiuqin Sun	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 48-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 51-67 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/06/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Election/Restrictions*

1. Applicant's election with traverse of claims in Species I, claims 48-50 is acknowledged. Applicant's arguments about the traversal are noted by the examiner. However, the examiner's position is that: where there is no disclosure of relationship between species (see MPEP 806.04(b)), they are independent and/or distinct inventions and election of one invention following a requirement for restriction is mandatory even though application disagrees with the examiner. There must be a patentable difference between the species as claimed. See MPEP 806.04(h). Since the claims are directed to independent and/or distinct inventions, restriction is proper and made final pursuant to 35 U.S.C. 121, and it is not necessary to show a separate status in the art or separate classification (MPEP 808.01(a)).

Per Applicants' response dated 09/28/2007, a provisional election was made with traverse to prosecute Species I, claims 48-50. Claims 51-67 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet ***within the range of 50 to 150 words***. It is important

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that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specifically, the Abstract of the Disclosure is objected to because it can not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 48 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (U. S. Pat. No. 6579190).

Regarding claim 48, Yamamoto discloses a system for measuring the flight of a projectile (Abstract), comprising: a projectile (i.e., the golf ball) comprising an exterior

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surface and a set of orientation identifiers distributed over the exterior surface, such that, for every orientation of the projectile, there exists, from any fixed perspective, a unique viewable configuration of a sub-set of the identifiers (Figs. 4A and 4B; col. 10, lines 57-63); means for capturing a first image of the surface of the projectile at a first time, the first image including a first configuration of a first sub-set of the orientation identifiers (cols. 10-11, lines 60-6); means for determining the orientation of the projectile from the first configuration; means for capturing a second image of the surface of the projectile at a second time, the second image including a second configuration of a second sub-set of the orientation identifiers (cols. 10-11, lines 60-6); means for determining the orientation of the projectile from the second configuration (cols. 10-11, lines 60-6); and means for determining the rotational velocity of the projectile in flight from its orientation at the first time and its orientation at the second time (cols. 10-11, lines 60-6).

Regarding claim 50, Yamamoto discloses: a processor for providing means for determining the orientation of the projectile from a configuration of a sub-set of the orientation identifiers (cols. 10-11, lines 57-6).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Fu et al. (U.S. Pub. No. 20050047544).

Regarding claim 49, Yamamoto discloses the system including the subject matter discussed above except: means for determining the translation velocity of the projectile from the first and second images.

Fu et al. disclose a system for determining translational and rotational parameters of a 3D object from a first and a second 2D images of the object (§§ 0009, 0011 and 0025).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Fu et al. in the invention of Yamamoto to determine a translation velocity of the projectile between the two images using the means similar to that for determining the rotational velocity of the projectile, in order to examine both the rotational and translational variation features of the object (Fu et al., §§ 0009), since it is deemed that obtaining an average velocity by dividing the distance traveled by a time interval is an obvious matter.

#### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

XS   
October 29, 2007



MICHAEL NGHIEM  
PRIMARY EXAMINER

10/29/07

/Michael P. Nghiem/

Primary Examiner, GAU 2863